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The Societal Promise of Improving Care for Depression

Depression is now the second-leading cause of disability worldwide. It brings about as much loss in functioning as most chronic diseases—for example, diabetes or heart disease. Depression costs employers more than \$51 billion per year in absenteeism and lost productivity, not including high medical and pharmaceutical bills. Treatment (medication and psychotherapy) is effective for 70 to 80 percent of depressed patients. But studies over the past decade have consistently found low rates of detection and appropriate treatment in primary care settings, where most depressed patients go if they seek care. Overall, only about one-fourth of people with depression receive appropriate treatment—care that is consistent with accepted clinical guidelines. Rates are particularly low among underserved minority groups.

A team of RAND experts, led by Kenneth Wells, designed and evaluated *Partners in Care*, a real-world trial to determine whether diverse primary care clinics could implement practical programs for improving depression care and to assess whether such programs could reduce disparities in care for minorities.

Their key findings:

- Over two years, the quality improvement programs improved the quality of care that patients received
- The programs also improved patients' health and quality of life, and increased the amount of time that patients worked
- The programs modestly increased health care costs but were relatively cost-effective, compared with other accepted interventions
- The programs reduced ethnic disparities in health outcomes.

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Partners in Care: A Collaborative Approach to Improving Depression Care

Partners in Care (PIC) evaluated how two guidelines-based quality improvement programs for depression, as implemented by managed, primary care clinics, affected quality of care, health-related outcomes, employment, and disparities in clinical outcomes. The study involved 181 physicians in 46 primary care clinics in 7 managed care organizations, located in geographically and socioeconomically diverse communities across the country. Within each study location, the clinics were randomly assigned either to conduct care as they usually would ("usual care") or to participate in one of two quality improvement interventions—one that facilitated medication management and one that facilitated psychotherapy.

This product is part of the RAND Corporation research brief series. RAND research briefs present policy-oriented summaries of individual published, peer-reviewed documents or of a body of published work.

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20041008 338

More than 27,000 patients were screened for depressive disorders; 1,356 patients (70 percent of those eligible for the study) agreed to participate. The research team followed the participants for 5 years, making this the first study to examine the very-long-term effects of practice-based quality improvement programs. The participating patients were ethnically diverse. One-third were Latino, a group thought to have rates of depression comparable to whites but in whom depression treatment has rarely been studied.

The study's approach resembled resource management and education more than a typical clinical trial. After each practice nominated leaders—a doctor, a nurse supervisor, and a mental health specialist—the study team trained them to educate other staff in implementing the quality improvement programs and provided them with written and videotaped materials for this purpose. (All of the PIC materials can be downloaded from <http://www.rand.org/health/pic.products/>)

Both quality improvement programs followed a collaborative care model, involving empowerment of patients, education of patients and clinicians, case management by nurses, and teamwork in program oversight among primary care clinicians, mental health specialists, and nurses. In the medication-oriented program, the depression nurse helped patients get started on treatment and managed medications for 6 or 12 months. In the psychotherapy-oriented program, 14 to 16 sessions of cognitive behavioral therapy were provided at a reduced fee.

No one told the clinics, clinicians, or patients what to do. They were encouraged to follow their own goals. Physicians and patients were informed about both medication and therapy, but patients and providers were free to choose the type and amount of treatment, or none. In effect, the clinics and their patients were given resources and training to improve care themselves.

How *Partners in Care* Affected Patients' Lives

The quality improvement (QI) programs significantly increased appropriate care for all patients. Patients who had access to the quality improvement programs were about twice as likely to start antidepressant medication and/or psychotherapy over the first 6 months than were patients in the usual care clinics; over the first 12 months, they were more likely to receive appropriate care—quality care—for depression overall (see Figure 1). Patients in the quality improvement programs reported significantly improved quality of life and were significantly less likely to be depressed over time: For instance, 12 months after study enrollment, patients in the programs were 10 percentage points less likely to be clinically depressed than were patients in usual care.

A full 57 months after enrolling in the study, patients in the QI programs were 7 percentage points less likely to be depressed.

Assessing Cost and Cost-Effectiveness

The research team assessed the cost-effectiveness of the quality improvement programs from a societal perspective by considering how the programs affected total health care costs, and patients' depression burden and quality of life, relative to usual care. They found that the programs reduced the amount of time patients were burdened with depression by 1 to 2 months while increasing health care costs over usual care by \$350 to \$450 per patient over two years. Overall, the programs' costs per quality-adjusted life year—a year of life adjusted for its quality or its value, the standard measure of cost-effectiveness—were in the range of other accepted medical interventions.

In addition, the research team examined the effects of the quality improvement programs on patients' employment—an outcome rarely studied in prior depression trials, despite its importance for patients and payers. They found that the programs increased the amount of time patients were working by about one month. For most patients, the income they would earn from an additional month of employment would more than cover the additional health care costs of the programs.

Examining Program Effects on Disparities in Clinical Outcomes

Historically, underserved minority groups such as Latinos and African Americans have been less likely than other groups to receive appropriate care for depression. The *Partners in Care* team were particularly interested in whether the quality improvement programs that the clinics had implemented would increase or reduce disparities in clinical outcomes between minority and white patients. Often, innovations can increase disparities if more-advantaged groups have greater access to them.

To ensure that minority patients were included in opportunities for care, experts in mental health interventions for minority patients participated in designing the educational materials for the quality improvement programs. All program materials were available in English and Spanish. Latino and African-American providers appeared in videotapes that were included in the program material for all patients. Information regarding cultural beliefs and ways of overcoming barriers to appropriate treatment for Latino and African-American patients was included in the training materials given to providers. And minority researchers directly supervised the local experts throughout the programs.

Figure 1
Programs Increased Appropriate Care for All Patients

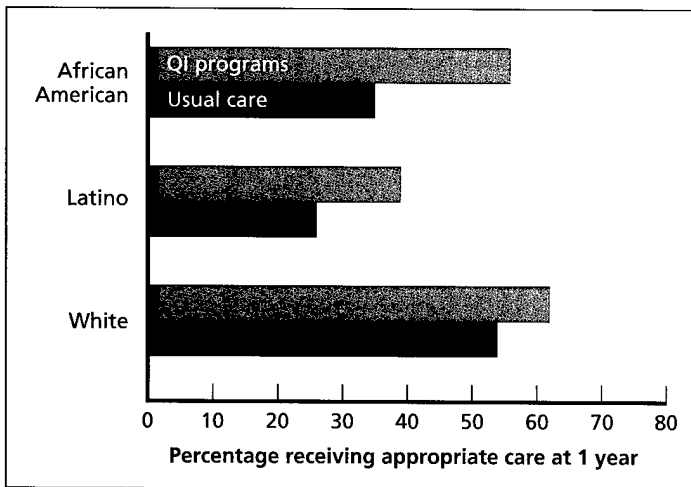
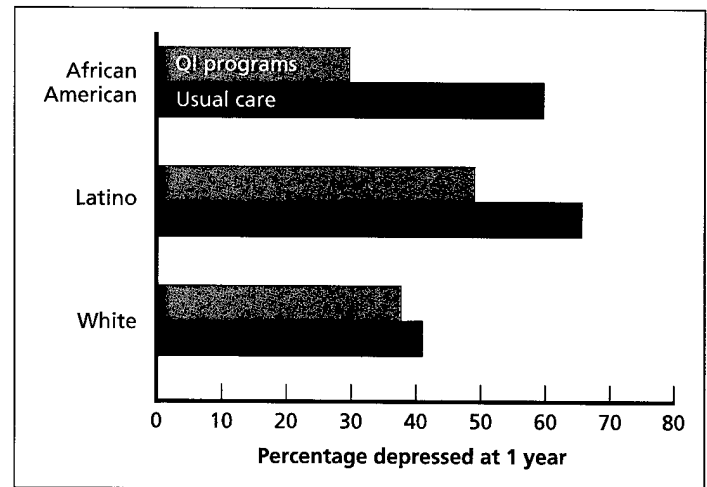
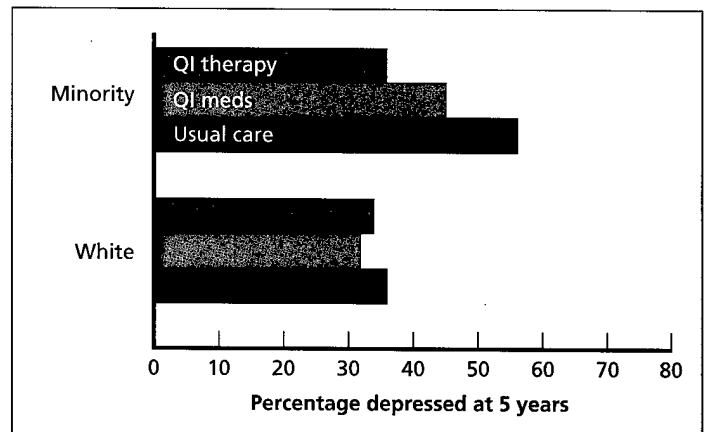


Figure 2
Programs Reduced Disparities in Clinical Outcomes



The researchers found that, relative to usual care, the programs reduced disparities in clinical outcomes during the programs. For example, after 1 year (the end of the active programs), Latinos and African Americans in the programs were significantly less likely to be depressed than their counterparts in usual care, who, in turn, had poorer outcomes than whites in usual care (see Figure 2).

Figure 3
Programs Continued to Reduce Disparities Over the Long Term



The reduction in disparities was still observable 5 years after the programs. Under usual care, 56 percent of minorities and 36 percent of whites were depressed after 5 years—a large disparity in outcomes. But the quality improvement programs largely eliminated the disparity, reducing the prevalence of depressive disorder by 10 to 20 percentage points among minority patients. Among whites, the programs caused a drop of only 2 to 4 percentage points, a significant difference from the program response of the minority patients. There are few other examples of specific programs that primary care clinics can implement to reduce disparities.

by diverse managed care organizations under usual practice conditions, can decrease the personal and societal burdens of depression. Improvements span clinical outcomes, quality of life, and employment status; and the effects are large for a quality improvement program. Moreover, the programs are relatively cost-effective from a societal perspective.

The medication and psychotherapy programs produced different (favorable) outcomes for minority patients (see Figure 3). Of minority patients who were in the medication program, 45 percent were depressed after 5 years; the comparable number for those in the therapy program was 36 percent. The researchers think that the more favorable outcomes in the psychotherapy program could be because minorities view that type of program as more culturally appropriate. Both Latino and African-American patients tended to prefer psychotherapy to medication as a treatment for depression at the beginning of the study.

The programs improve care for all patients, but minority patients profit the most. Five years after enrolling in the programs, minority patients are about as likely as white patients to be depressed. Thus, over the long term, the programs improve equity, a major public health goal.

Policy Implications

Partners in Care provides a series of hopeful messages. Modest, practical, quality improvement programs, as implemented

However, achieving benefits for all patients may require policy changes. Although the programs are cost-effective from a societal perspective, they do increase direct health care costs. As a result, providers will not offer them widely unless they are compensated for doing so. Yet, few public

or private insurance plans cover the key components of collaborative care for depression, particularly care management (for example, phone follow-up), physician supervision of care managers, or a psychiatrist's consultation with primary care physicians and care managers. Vulnerable populations face additional barriers, such as limited or no insurance and language barriers.

Based on findings such as those summarized here, President George W. Bush's New Freedom Commission on Mental Health (<http://www.mentalhealthcommission.gov/>) has explicitly recommended that public and private insurance programs be expanded to include the key elements of collaborative care. Fee-for-service plans (for example, Medicare) can make collaborative care services reimbursable. Managed care plans can require that health plans cover, and clinics provide, these services.

Improved medical care has much to offer depressed patients and their families and communities if we can create the conditions necessary to put such programs in place. ■

This Highlight summarizes RAND Health research reported in the following publications:

Miranda J, Duan N, Sherbourne C, Schoenbaum M, Lagomasino I, Jackson-Triche M, Wells KB, "Improving Care for Minorities: Can Quality Improvement Interventions Improve Care and Outcomes for Depressed Minorities? Results of a Randomized, Controlled Trial," *Health Services Research*, Vol. 38, No. 2, April 2003, pp. 613-630.

Schoenbaum M, Miranda J, Sherbourne C, Duan N, Wells KB, "The Cost-effectiveness of Interventions for Depressed Latinos: Results of a Randomized, Controlled Trial of Quality Improvement for Depression," *Journal of Mental Health Policy and Economics*, Vol. 7, No. 2, 2004, pp. 69-76.

Schoenbaum M, Unützer J, Sherbourne C, Duan N, Rubenstein LV, Miranda J, Meredith LS, Carney MF, Wells K, "Cost-effectiveness of Practice-Initiated Quality Improvement for Depression: Results of a Randomized Controlled Trial," *Journal of the American Medical Association*, Vol. 286, No. 5, September 2001, pp. 1325-1330.

Schoenbaum M, Unützer J, McCaffrey D, Duan N, Sherbourne C, Wells KB, "The Effects of Primary Care Depression Treatment on Patients' Clinical Status and Employment," *Health Services Research*, Vol. 37, No. 5, October 2002, pp. 1145-1158.

Wells KB, Sherbourne C, Schoenbaum M, Duan N, Meredith L, Unützer J, Miranda J, Carney MF, Rubenstein LV, "Impact of Disseminating Quality Improvement Programs for Depression in Managed Primary Care: A Randomized Controlled Trial," *Journal of the American Medical Association*, Vol. 283, No. 2, 2000, pp. 212-220.

Wells K, Sherbourne C, Schoenbaum M, Ettner S, Duan N, Miranda J, Unützer J, Rubenstein L, "Five-Year Impact of Quality Improvement for Depression: Results of a Group-Level Randomized Controlled Trial," *Archives of General Psychiatry*, Vol. 61, No. 4, April 2004, pp. 378-386.

Abstracts of all RAND Health publications and full text of many research documents can be found on the RAND Health web site at www.rand.org/health. The RAND Corporation is a nonprofit research organization providing objective analysis and effective solutions that address the challenges facing the public and private sectors around the world. RAND's publications do not necessarily reflect the opinions of its research clients and sponsors. RAND® is a registered trademark.

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